

Underwriters' Laboratories
(Underwriters Laboratories, Inc.)
207-31 E. Ohio Street
Chicago
Cook County
Illinois

HABS No. IL-1116

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PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Park Service
Department of the Interior
Washington, D.C. 20240

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UNDERWRITERS' LABORATORIES, HABS No. IL-1116

Special note on field photos:

These photos show invaluable historical views of the buildings and activities of Underwriters' Laboratories. If interested, ask librarian to bring the photos. These photos cannot be used for publications or for other public purposes.

HISTORIC AMERICAN BUILDINGS SURVEY

HABS No. IL-1116

UNDERWRITERS' LABORATORIES
(Underwriters Laboratories, Inc.)

Location: 207-231 E. Ohio Street, Chicago, Cook County, Illinois
USGS Chicago Loop Quadrangle, Universal Transverse Mercator
Coordinates: 16.448423.4637769

Present Owner: Grand-Ohio Venture
Irving J. Markin, Managing Partner
135 S. LaSalle Street
Chicago, Illinois 60603

Present Occupant: Vacant. In 1979 Underwriters' Laboratories (UL) moved to its new quarters in Northbrook, Illinois.

Significance: The Underwriters' Laboratories buildings are of interest historically because they served as the headquarters from 1905 to 1979 of the well-known organization in the United States dedicated to the examination and testing of appliances, devices, machinery and materials in respect to life and fire hazards and accident prevention.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of erection: 1905. Original specifications are dated September 28, 1904 (photocopies of the plans are included in the HABS photo book). A letter found with the specifications dated December 15, 1904 discussing bids received [\$8825.00] for erecting the building makes it clear that construction could have not commenced until 1905. (Letter from Argyle E. Robinson to William H. Merrill, dated December 15, 1904). A plat dated February 20, 1905 shows a proposed four-story brick building. The building appears in the Sanborn Insurance Maps of Chicago, Vol. I, p. 27, printed in 1906. Underwriters published a photograph of it in their Organization, Purpose and Methods of Underwriters' Laboratories, Jan. 1908, p. 2.
2. Architect: Argyle E. Robinson. Presumably the commission came to Robinson through his brother William C. Robinson who then served as Chief Engineer for Underwriters' Laboratories. The architect was born May 15, 1872 in Bloomington, Illinois and was educated in Chicago, at Hyde Park High School, the Chicago Manual Training School, and the Armour Institute (1894-95), and in Boston at MIT (1896-97). He began his practice in Chicago in 1900 and later was "consultant for the Illinois Steel Co., National Lead Co., Universal Portland Cement Co., Underwriters' Laboratories, and the Union Petroleum Co." (Marquis, ed., Book of

Chicagoans, 1917, p. 575). At one time he was the Chicago representative of the New York architectural firm of Mann, MacNeille, and Lindeberg (81ock, Hyde Park Houses, 1978, pp. 98-99). In 1926 Robinson became City Architect of the City of Chicago, a post he held until his death in April 1931. In addition to buildings for Underwriters' Laboratories, Robinson is known to have designed the following structures, all in Chicago:

Washington Park Storage Warehouse

NE corner of 52nd and Cottage Grove
(Hyde Park neighborhood), 1906 or earlier
Brickbuilder, XV (Oct. 1906), pl. 136.
Architectural Review (Boston), XIII (Nov. 1906), p. 151.
Architectural Record, XXII (May, 1908), p. 375.
Brickbuilder, XVI (Jan. 1907), p. 14.
Architectural Record, XIX (Feb. 1911), p. 167-176.
Robinson made an addition to the warehouse on its north side between 1907 and 1911.

William G. Hale House, 5757-Kimbark Ave., 1908
81ock (Construction News, May 2, 1908), p. 122.

James P. Hall House, 1308 E. 58th St., 1908
81ock (Construction News, May 2, 1908), p. 128.

John 8. Jackson Apartment, 5714-24 Kenwood, 1909
Block (Construction News, April 7, 1909), p. 120
American Architect, C (Nov. 29, 1911), 232 ff.

Garage for Rapid Reliance Co., Chicago
Western Architect, XX (Feb. 1914), pl. 4.

3. Original and subsequent owners: The Underwriters' Laboratories building was erected on the W. 50 ft of "The E. 100 ft of the W. 150 ft of the N. 100 ft of the W. 216-2/3 ft of 81ock 20 in Kinzie's Addition to Chicago, a subdivision of the N. fraction of Section 10-39-14." Title to this land and to the land east of it on which were later erected additions to the original building remained the property of Anita McCormick Blaine (the widow of Cyrus McCormick). By 1924, when the Underwriters' Laboratories buildings extended 266 feet along the south side of Ohio Street beginning roughly 50 feet east of the intersection of Ohio with St. Clair, the land had been rearranged into two parcels, as follows: 1. The E. 166-1/3 ft of the N. 100 ft of the W. 216-1/3 ft of Block 20 (etc.). 2. The E. 100 ft of N. 100 ft of the W. 316-1/3 ft of 81ock 20 (etc.). It was in that year, on June 28, 1924, that Underwriters' Laboratories purchased the land from Mrs. Blaine. Before that time Mrs. Blaine had leased them the land as is certain not only from the property records but as well from the approval Mrs. Blaine gave to the specifications for each

building erected upon her property up to 1924. The Warranty Deeds for parcels 1 and 2 above are dated June 28 and June 27, respectively, and were filed July 1, 1924, Document Numbers 8491430 and 8491431. The east 166 feet cost \$46,312.00 (\$51.50 in stamps) and the west (cost not given) contained \$60.00 in revenue stamps.

1979- Underwriters' Laboratories moved to new quarters in Northbrook, Illinois

4. Original plans and construction: Three original plans survive:
- a. First floor plan
 - b. Second floor plan
 - c. Front and rear elevations

Specifications are also preserved for: General, Masonry, Iron work, Carpentry, and Plumbing and Sewage. Photocopies of the above plans are in the HABS photo book.

The original building consisted of two sections: the one contained three stories and basement (UL later identified this part of the building as Building No. 1),* was 40 feet high and faced on Ohio Street. Behind it was a one-story section that opened onto an alley on the south. This part of the building was later identified by UL together with a two-story addition to it, as Building No. 5. The width of the entire structure was 50 feet, the depth of each section was 50 feet, foundations were of cut stone, outside walls were brick and interior columns were iron fireproofed with hollow tile. The floors and roof consisted of iron beams protected by hollow tile floor arches. Ceilings were surfaced with tiles laid in herringbone patterns. Face brick decorated the stair hall. Hollow tile was used for interior partitions. No wood or other combustible materials were used for interior covering or trim. All window frames and sash were metal glazed with wired glass, and the doors and door frames were also metal. Included was a pressure tank for activating an automatic sprinkler system in the front half of the building. The construction was as fireproof as the technology of the time permitted.

According to the Sanborn Insurance Maps of Chicago, Vol. I, the second floor was occupied by the Testing Office and the third floor by the Laboratory, while the one-story rear section was used for testing large apparatus. A test furnace occupied a part

*See floor plans in the Sources of Information Section, under Supplemental Material.

of the 50 foot wide lot on the east side of the building which constituted half of the 100-foot parcel they leased from Mrs. Blaine.

The Ohio Street front was given an ornamental treatment consisting of a dull red terra cotta base about three feet high, with a face brick of similar color above it which served to organize the windows into three vertical accents and to frame the windows. The rest of the wall was a lighter red face brick pitted and burned to blues and bronzes. The mortar was even darker in color. In a panel between the center windows of the first and second floors there was a terra cotta panel with "Underwriters' Laboratories" in raised letters finished in gold.

5. Alterations and additions: As Underwriters' Laboratories enlarged its scope of operation from examining and testing appliances and devices for fire hazards (Principles, Organization and Methods, * 1906, p. 3) to determining the merits of appliances, devices, machines, and materials in respect to life, fire and collision hazards, and theft and accident prevention, it became necessary to add to the original building and to remodel both that structure and the additions from time to time. A chronological documentation of the major alterations and additions follows:

Building No. 2: In 1908 Argyle Robinson built an addition with a depth of approximately 30 feet and a front along Ohio Street of about 68 feet. Like the front part of the original building (No. 1), it included three stories and basement and stood 40 feet high, and added 8000 square feet to the 12,500 square feet of the original building. Its construction and finishes were the same as used in Building No. 1. Aesthetically, the front was Robinson's only concern which he handled effectively by continuing the theme of the original facade so as to disguise to some degree the inherent visual dichotomy and make the building appear to be a single structure.** An illustration of the extended facade appeared in POM for Oct. 1909, p. 2 (not illustrated in this document). Specifications for the building are dated April 10, 1908. Plans of the first and second floors are included in the HABS photo book. The original street numbers of 378-380 for No. 1 and 382-386 for No. 2, were changed in 1909 to the current numbers of 207-209 E. Ohio for No. 1 and 211-215 E. Ohio for No. 2 when the present street numbering system was introduced. According to the plans and the Sanborn atlas of 1906 (corrected to 1931), this first addition contained a laboratory in the basement and first floor with offices above. At the

* Hereafter referred to as POM.

**But in designing Building No. 2 Robinson did not seek a near perfect balance, as he had done in designing the original building, presumably because even then he and/or UL anticipated further expansion.

eastern end of the second floor, there was a large room with a fireplace that served as the office of the president. This was converted later to a reception room. By that time the open area at its rear contained, in addition to the test furnace, a 65-gallon underground storage tank for gasoline, and a one-story wooden building fronting on the alley. Shortly thereafter two more furnaces and an iron storage building were erected in the yard, and a fire escape was added to the east side of Building No. 2.

Building No. 3: This was Robinson's last structure for Underwriters' Laboratories. It was an addition to the rear of Building No. 2, presumably designed in 1911 because one of the surviving drawings for it showing the American Luxfer Prisms used in its construction is dated January 1912. The structure was of an industrial character and intended to house some of the operations previously conducted out-of-doors. It contained two large furnaces, a 55 foot high brick shaft for testing safes by dropping them when red hot, and a high apparatus for measuring the resistance of columns to fire. On the north and west sides, the building was one-story high with its ceiling varying from 12 to 18 feet. On the south and east sides it was two stories high. At its center there was an opening of 8'X 18' in plan that ran from floor to roof, a distance of 40 feet. Columns and beams were metal, encased in concrete; floor arches were concrete, as was the roof; and the exterior walls on the south and west sides were brick. Given the complexity of its layout, Building No. 3 is best understood from the section of it and the aerial view. In general, the construction consisted of concrete-covered steel columns and beams, with concrete reinforcing for floors, roof ceiling and siding. In addition, there were skylights on the roofs, steel rolling doors and shutters, and wire glass and Luxfer Prisms for glazing.

Building No. 4: Built in 1913-14 from plans by architects Schmidt, Garden and Martin. A plat of January 11, 1913 showing the existing buildings Nos. 1, 2, 3 and the parcel on which Building No. 4 would stand suggests that planning for the addition was to take place in the winter of 1913. The plans bear dates beginning April 14, 1913 and extending to March 23, 1914. A rendering of the Ohio Street front appeared in POM, April 1913 and a notice stating that bids were then being received was printed in Construction News, XXV (May 24, 1913), p. 17. A photograph of the completed structure was printed in POM, for May 1914. The new building, 35 feet deep and 147 feet long, had the same vertical dimensions and floor levels as the first two buildings. It differed, however, in having the basement and first floor of its east 138 feet combined into a single large one-story unit housing the Hydraulic Laboratory. Its second floor housed an ornamental staircase and reception room, executive offices, and presidential office suite. The chemistry

Laboratory occupied the third floor. As with Buildings Nos. 1 and 2, construction was mixed. The side walls were common brick surfaced on the outside with face brick to match that existing in Nos. 1 and 2, and on the inside with pressed brick in the ornamental areas: stairs, reception room, corridor and president's suite. The office walls were plastered, while the laboratory walls were unfinished except for painting the brick. Some beams consisted of I-beams encased in concrete but others over short spans, as above windows, were reinforced concrete. Floors consisted of reinforced concrete beams carrying concrete floors and supporting tile ceilings. Floors in the ornamental areas were art marble, a composition material. The roof was constructed like the floors. All window openings contained metal frames and sash, and wire glass. Doorways were of the same materials, even in the president's office. Art glass windows in the entrance staircase and hall were rendered fire resistant by rolling metal shutters. In addition to giving the entire facade of Underwriters' Laboratories an appropriate aesthetic treatment, the designing partner, Hugh Garden, also provided an ornamental staircase, executive hallway, and president's suite. As regards the facade, he moved the main entrance to the approximate center of the three buildings (it is actually 7 feet east of the center) and then devised a scheme of fenestration that disguised to some degree the asymmetry of the east and west halves. The rendering of 1913 indicates that originally Garden had intended to produce an even more formal facade than was built. His early design shows doubled vertical panels four windows west of the eastern end, which, together with the one vertical panel at the eastern edge, nearly duplicated the original facade of 1905. As built, however, one of the double vertical panels near the eastern end was terminated at the third floor, a window added above it; and two small double windows were inserted between the vertical strips where only one had been planned. The result was to produce a puzzling asymmetry in the east part of the facade as compared with the western end. As for the surface treatment, he extended the essentials of Robinson's designs including grouped windows, horizontal and vertical panels, rectangular accents, cornice, window subdivisions, and materials to embrace the entire 226 foot long facade. His own aesthetic preferences began at the front door with the simplified Prairie style that he used erratically from about 1900 to about 1920. In addition to the relatively simple planar, but sometimes faceted and sculptural treatment seen in the brass entrance door (re-installed in the new building in Northbrook), pressed brick interior walls, simple handrails, and the like, he also designed metal grilles, art glass windows, an art glass and bronze lantern, and a monumental fireplace, and lamps for the president's suite in his own version of the early modern Prairie idiom. Somewhat later (about 1915) Garden also made designs in the same style for lamp standards for the sidewalk in front of the building. These first appear in a photograph published in 1916 (Annual Report, 1916, p. 3). POM

placed the value of the buildings and equipment owned by UL at \$175,000. Between then and 1919 the open area behind Building No. 4 began to fill up with ephemeral structures, and a fire escape was added to the rear elevation of the building itself.

Building No. 5: Erected in 1921 from plans prepared in 1920 by Schmidt, Garden and Martin. This was actually a remodeling of the one-story rear half of Building No. 1 (but given the separate Number 5 by UL) and the addition to it of two stories. The first recorded contact between SGM and UL occurred in 1911 and concerned the remodeling and extension of the rear half of Building No. 1 to four stories.*

(Specifications, dated April 19, 1911 and August and September, 1912; a building report in Construction News, XXXIV (September 21, 1912) p. 14: brick, steel, reinforced concrete and hollow tile, four stories, 41'X 50', two skylights, and metal window frames and sash; and a letter of October 31, 1912 to SGM from UL commenting on the specifications). After that the project remained in limbo until 1920, when in June of that year, SGM prepared new specifications for the project. There are also plans extant for the remodeling all dated October 10, 1920. The remodeled building would house a Shipping Room on the first floor, office on the second, and the Electrical Lab, Casualty Lab and Shop, and the General Engineering Office on the third floor. The construction was similar to that elsewhere in the building: brick walls; reinforced concrete floors, beams and roof; hollow tile interior partitions, etc.

*No documentary evidence has been unearthed so far to suggest why SGM superseded Robinson as UL architect. Certainly Robinson intended to remain the UL architect for some time if we are to judge by the design of his 1908 addition (not illustrated in this narrative). There, instead of attempting to produce visual unity as he had done with the original design, he organized the new front in so asymmetrical a fashion as to suggest that the front as executed in 1908 was only a fragment of a more extensive front that would be executed in stages. Such a design may have existed and been passed on to SGM. That SGM was engaged on the extension of the first building (to be called Building No. 5) at the very moment in 1911 that Robinson was erecting Building No. 3 implies that it was Robinson himself who decided, perhaps for personal reasons, not to continue. Otherwise, UL would simply have replaced Robinson with SGM, or waited until he had finished No. 3 to make the change. That Robinson's brother continued as Vice President of UL into the twenties, and thus could certainly have arranged to keep his brother on in some way had there been dissatisfaction with his work, also suggests that the parting was initiated by Robinson himself.

Building No. 6: A heating plant, laboratory, and offices were built in 1923 from plans by SGM. The date is according to a notation in the Sanborn Atlas of Chicago, Vol. 1, of 1906-31; the plans, dated April 26, 1923; and a Plat of Survey dated June 18, 1924, that shows the building. Built as one unit completely covering the site of 63' X 150' directly behind Building No. 4, the structure was three stories high in its eastern two-thirds, and five stories plus penthouse in its western one-third. As the intention was to add an additional two stories to the eastern portion whenever required, the foundations and columns in that part were stressed for the additional load. Construction of the extra two stories did not take place, however, until 1948 (see below). The basement contained a new boiler room, coal bunkers, floor testing furnace pits, transformer rooms, and storage. On the ground floor, which was about 1-1/2 stories high, there were two large floor furnaces, a massive traveling horizontal crane, some 42 feet long, that could move the length of the building, and an otherwise unobstructed floor space for testing purposes. The northern 15 feet of this room was illuminated by skylights from a light court above the first floor between Building Nos. 4 and 6. The second floor contained Burglary, Automotive Casualty and Sprinkler Laboratories. Above that were offices and other unidentified laboratories. The upper floors of Buildings Nos. 4 and 6 were connected by a staircase tower built into the light court at their western ends and another about one-third of the way in from their eastern walls. Beside providing vertical circulation, the staircases permitted easy adjustment between the floor levels in the two buildings as the high first story in No. 6 made its upper floors somewhat higher than those in No. 4. Outside walls apparently supported only themselves as the interior floor and the roof loads were carried entirely (or largely) on an internal framework of reinforced concrete columns and beams spanning the 45 feet from the north to the south walls. A shelf built as part of each column projected into the ground floor room to carry the track of the traveling crane. The completed building can be seen in a birdseye rendering of the UL complex printed in POM in 1927. Even though the building fronted on an alley, the architects attempted to give its south facade an aesthetic character somewhat above that of the ordinary industrial building. Their intentions were ultimately thwarted, however, when in 1946-48 two stories and an attic were added to the three-story section in a manner that was at best utilitarian.

Building No. 7: This was actually not a separate building but a two-story addition to Buildings 2 and 4. Construction began in August 1937 according to a news release dated August 6, 1937. Specifications and drawings by Schmidt, Garden and Erickson are dated June 24, 1937. Added at the same time was a second elevator next to the eastern stairway in the light court separating Buildings Nos. 4 and 6. The first elevator in the building had been installed sometime between 1923, when No. 6 was

erected and 1937, in the corner formed by Buildings Nos. 2, 4 and 6. The new floors were similar in structure, materials and finishes to the upper floors of Building No. 6. In plan the new floors had exterior dimensions of 169' X 44' and were approximately centered on the 266 foot Ohio Street facade to preserve its apparent symmetry. Although the architects also attempted to perpetuate the aesthetic unity of the facade by employing similar brick, and organizing the windows vertically to match those below, the poverty of their design -- which lacks the strong projecting cornice and the bands of ornamental brick that bend together the lower surfaces -- did much to devalue the original design of Robinson as continued by SGM.

Building No. 8: As with Buildings Nos. 5 and 7, UL chose to give a separate building number to a project that, in fact, merely added two stories and a low seven-foot high attic to the eastern two-thirds of Building No. 6. The year of erection is uncertain as there are drawings for it dating from May 14, 1946 to January 26, 1948; specifications dated May 14, 1946; and a rendering of it that was published in POM as early as February 1945. In any event, the resulting addition was hardly different in structure than the building that carried it. The interiors were more up to date, however, and featured suspended acoustical ceilings with fluorescent lighting and asphalt mastic tile floors. The exterior was a light-colored brick (now painted red) which, with its fenestration -- that differed from the building below and alongside it -- combined to give the new addition the air of an uncomfortable and precariously perched interloper. After that the only remembered significant remodeling of the main Underwriters' building was the "modernization" about 1967 of the reception room and president's suite on the second floor in Buildings Nos. 2 and 4.

B. Historical Context:

The labyrinthine structure on Ohio Street in Chicago that served as the headquarters of Underwriters' Laboratories up to the time the corporation moved its operations to new quarters at Northbrook, Illinois, had grown organically to its final size between 1905 and 1946-48 through the gradual accumulation of additions and remodelings as detailed above. Shepherding the testing organization through the early years from 1905 to 1923, when the building was virtually complete in its essential features (excluding the two-story addition to the portion facing on Ohio Street) was the founder and first president of Underwriters' Laboratories, William Henry Merrill (d. 1923). In 1893 Merrill, an electrical investigator, was brought to Chicago by the Chicago Board of Fire Underwriters with the assignments of working out the problems of the automatic fire-alarm service in Chicago and of inspecting the electrical installations at the Columbian Exposition. While working at these tasks, Merrill found it necessary to conduct some tests and for that purpose a room was secured on the third floor of Fire Insurance Patrol Station No. 1 at 159 LaSalle Street in Chicago's Loop. Merrill's testing of electrical devices soon led to the founding of the Underwriters' Electrical

Bureau which operated under the auspices of the Commercial Union Insurance Company and the Chicago Board of Fire Underwriters. When additional financial support was provided by the National Board of Fire Underwriters, the time had come to find larger quarters. At the same moment, the insurance companies became aware of dangers associated with the manufacture of the newly discovered acetylene gas and, as a result of their concern, the Chicago Board and Commercial Union assigned engineer William C. Robinson, then sprinkler inspector for the Chicago Board, to study the problem. As this charge was to involve laboratory testing, it seemed reasonable to bring Merrill's and Robinson's investigations together and to extend their combined work to the whole field of fire protection and fire prevention.

In 1898 the Underwriters' Electrical Bureau moved into a former boys' school at 215 E. 21st Street. By November 1901, the testing operation had grown sufficiently that it was decided to incorporate under Illinois law as a not-for-profit corporation "to establish and maintain laboratories for the testing of appliances and to enter into contracts with owners and manufacturers of such appliances respecting the recommendation thereof to insurance companies." Officers of the corporation in 1902 were H. C. Eddy, secretary of the Commercial Union and Palatine Insurance Companies; W. H. Merrill, an electrical expert of international reputation; B. F. Hardy, assistant secretary; and W. C. Robinson, Benjamin H. Glover, Fitzhugh Taylor, Dean Harvey, and Morris Moskovitz, engineers.

By 1903 the National Board of Fire Underwriters had become so convinced of the great value of the work being carried on by Underwriters' Laboratories for the insurance industry that they appropriated funds for the erection of a suitable new building to house the activities of the testing organization. Shortly after that the land on Ohio Street was leased from Mrs. Blaine and Argyle Robinson, the architect brother of engineer William Robinson, was commissioned to design the new building. After moving into the new structure in about June 1905, Underwriters' Laboratories continued to expand the scope of its work. In 1906 there began the label service for the purpose of certifying the results of their testing as it affected individual products, a service to manufacturers for which Underwriters' Laboratories is now known throughout the nation. The new program of label certification also involved the inspection of manufacturing facilities. Gradually the scope of the testing work was expanded to include more and more types of products until by 1913, or earlier, the aim of Underwriters' Laboratories became that of bringing "to users the best obtainable opinion on the merits of appliances, devices, machinery and materials in respect to life and fire hazards and accident prevention." As a unique organization providing a much wanted service, growth was inevitable, not only in staff but in plant facilities and equipment as well. Thus in 1908 began the expansion of the Chicago facilities (documented above) which only ceased when it was decided in the 1950s to begin erecting testing facilities at Northbrook, Illinois.

In 1952 Underwriters' Laboratories acquired 150 acres of land in Northbrook on which they built the first buildings of their new testing station in 1953-54. Another building was erected there in 1968, and it, like its Chicago predecessor, was added onto until it was large enough in 1979 to absorb the entire Chicago operation. When in October, 1979 the balance of the laboratories and offices was moved to Northbrook, the original buildings on Ohio Street were entirely stripped of equipment, machinery, and office furniture and furnishings. Also removed to Northbrook were the brass front door, brass nameplate, leaded glass windows of the stairhall, and the fireplace from the president's office.

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural Character: Because built by addition over a forty-year period, the Underwriters' Laboratories building displays a wide variety of structural and fireproofing techniques, none of which in and of itself appears to be of any special merit or interest. As a demonstration of how two architectural firms solved the difficult problem of enlarging a building while respecting the original design while attempting to make the facade appear to be a unified aesthetic entity at the end of each building campaign is of some, but hardly overwhelming interest. Probably the most important aspect of the building as architecture is the record it provides in its facade and a few interior spaces of the application to building of industrial character of what is essentially an early modern style of design.
2. Condition: The building was solidly and expensively built to the best industrial and fireproofing standards of its time and seems to have been given proper maintenance up to the end when UL moved to Northbrook. Thus, except for what appear to be minor problems with the heating plant and automatic sprinkler system, the buildings seem -- as indeed they should be -- in excellent condition.

B. Description of Exterior:

1. Overall dimensions: The Underwriters' Laboratories building covers a rectangular site on the south side of Ohio Street between St. Clair and Fairbanks Street that measures 266-1/2 feet east to west and is 99-1/4 feet deep. The height of its main front is 40 feet in which there are three stories. Approximately centered above that facade are two additional stories added at a later date. The other two fronts are irregular in shape, vary

widely in height, and are surfaced with ordinary brick in a variety of tones and textures that are grouped by date of construction. These facades are best understood by referring to the photographs and photocopies of the plans in the HABS photo book. The photographs and photocopies, supplemented by elevations from working drawings, will also make clear the fenestration, placement of doors and other openings, and aesthetic effect, which is minor. The west wall is built against the east wall of a four-story building located on the southeast corner of Ohio and St. Clair (the buildings do not share a common or party wall).

2. Because of the complexities of form, structure and interior organization, it is necessary to discuss each part separately, first outside, then in. In doing so the numbering system developed by Underwriters' Laboratories will be followed:
 - A. Building No. 1: This is the north 50 feet of the original building erected in 1905.
 1. Overall dimensions: 50 feet wide, 50 feet deep and 40 feet high, containing a basement and three stories.
 2. Foundations: Dressed stone resting on concrete and supporting brick load-bearing outer walls.
 3. Walls: The front wall is face brick and terra cotta over common brick; the side walls are common brick; the rear wall, now largely removed, was common brick. A photocopy of the original drawings for the front and rear elevations is included in the HABS photo book.
 4. Structural systems: On the ground floor eight iron columns encased in hollow tile carry interior floor and roof loads. Bearing and foundation walls in the basement support some of the loads thus making only four columns necessary in the lowest level. The material forming the columns in the upper floors is unknown. Metal beams encased in hollow tile running north to south support hollow tile floor and roof arches. Partitions are hollow tile.
 5. Openings: All doors are metal fixed in metal frames and where glazed, wire glass is used. All windows are double-hung metal sash with wire glass in metal frames.
 6. Roof: Flat, sloping to the rear. A spiral iron staircase passes through the roof at the northeast corner on the third floor to connect with a door

leading into the fourth floor of Building No. 7. Where it rises above the roof it is enclosed in a round-sided structure of glass blocks with flat roof above.*

7. Floor plans: The four floors are open except for: a) the entrance vestibule and staircase in the northwest corner b) the basement which is subdivided into six rooms by hollow tile partitions c) a vault on the ground and second floors near the stairs d) a small wood and glass enclosed office** on the ground floor e) a part of the southwest corner of the second floor which contains a toilet room.
8. Staircase: Surface with what appears to be face brick, now painted.
9. Flooring: Concrete and asphalt or vinyl tile.
10. Walls and ceiling finish: Walls: painted brick; ceiling: tile laid in herringbone patterns.
11. Mechanical equipment: None, except the ordinary radiators, lights and toilet fixtures.

B. Building No. 2: Built in 1908 as an addition to Building No. 1.

1. Overall dimensions: 68 feet along Ohio Street, 30 feet deep, 40 feet high, and contains three stories and basement.
2. Foundations: Dressed stone resting on concrete and supporting brick load-bearing outer walls.

*It is very unlikely that this glass-block structure was thought of or designed as an aesthetic statement when erected about 1939. Because the structure is all but hidden by the roof of Building No. 2, and has no stylistic connection with it or Building No. 7, it is likely that its apparent aesthetic is the result of necessity and not design. Its curving form responds to the shape of the spiral iron staircase within. And the glass block was undoubtedly used to provide a self-supporting fireproof exit stairway enclosure from Building No. 7 to Building No. 3, an enclosure that was also self-illuminating.

** This is the only wooden partition inside the entire complex.

3. Walls: The front wall is face brick and terra cotta over common brick. Its design was slightly altered at the east end when Building No. 4 was added. Its rear wall, now exposed only in the second and third stories, is load-bearing common brick. Its west wall is the original east wall of Building No. 1. The west wall is now an interior bearing wall.
4. Structural system, framing: Two columns support the interior floor loads vertically in all floors in the western 3/4 of the building while an interior bearing wall running north-south serves the same function in the eastern 1/4 except on the top floor where it is replaced by a column. Otherwise, the construction is identical to Building No. 1.
5. Openings: There are doors on each floor connecting Building No. 2 with Nos. 1 and 4. In addition, there is a door to No. 3 on the ground and second floors. As elsewhere the doors are metal in metal frames. Window openings contain metal sash glazed with wire glass held in metal frames.
6. Roof: The roof was removed when Building No. 7 was built above No. 2.
7. Floor plans: Each floor has a door at its east and west end connecting with Building Nos. 1 and 4. Floors 1, 2 and 3 are joined vertically by an elevator in the southeast corner that runs in a brick shaft that begins in and passes through the roof of Building No. 3. A ramp and staircase on the south side connect the second floor of Building No. 2 with the same floor in Building No. 3. On the ground floor Buildings 2 and 3 are directly connected through a wide doorway. The basement is divided into three rooms and a corridor by brick walls. Here, as elsewhere along Ohio Street, there is access to the space under the sidewalk. In Floors 2 and 3 a brick wall towards the eastern end divides the plan into 3/4 and 1/4.
8. Floors: Vinyl or asphalt tile except in the basement which is concrete.
9. Wall and ceiling finishes: Walls: painted brick; ceiling: tile laid in herringbone patterns.

10. Decorative features and trim: The reception room on the second floor originally served as the president's office and is furnished with a fireplace and walls surfaced with red and tan face brick, and a tiled ceiling. The flue is sealed.

11. Mechanical equipment: None, except the ordinary radiators, lights and toilet fixtures.

C. Building No. 3: Built in 1912 as an addition to Building No. 2. To understand this building in its original form, it is necessary to refer to photocopies of the plans in the HABS photo book.

1. Overall dimensions: 68 feet east to west; 69 feet north to south. The building is two stories high over an area in the southeast corner measuring approximately 40 feet east-west and 54 feet north-south. That space is reduced by an area 12' X 22' in its southeast corner where there is a vertical brick shaft of those dimensions, but is increased by an extension to the west at the south wall of 10' X 20'.
2. Foundations: Reinforced concrete 18" thick.
3. Walls: The main exterior wall is the one on the alley which is one, two and five stories in height and built of common brick 13" thick. That on the east side now forms the party wall with Building No. 6. On the other two sides the walls belong to Buildings Nos. 5, 1 and 2.
4. Structural system: Vertically the interior floor and roof loads are carried by steel columns encased in concrete. Original beams are iron or steel encased in concrete supporting concrete floor arches and a sloping concrete roof. Where vertical spaces have been filled in the construction is not known.
5. Chimneys: A metal stack rises from the northwest corner of the large room on the ground floor where it served a furnace that is no longer there.
6. Openings: A large opening closed by a rolling metal door leads to the alley at the rear. On the first floor there are the usual metal framed, metal doors opening into Building Nos. 5, 2 and 6. The windows are blocked up. The second floor has doors leading to Buildings Nos. 2 and 6. Its light is obtained through windows of the usual metal and wire glass type looking into interior courts.

7. Roof: The original sloping roofs above the areas remodeled for office use on the second floor are now covered over by new flat roofs produced by raising the perimeter walls to produce a continuous parapet.
8. Floor plans: Building No. 3 has no basement. The ground floor is now entirely open in its northern 2/3 except for the northeast corner which contains the base of a brick elevator shaft, which is also on Building No. 2. The south 1/3 of this space has been subdivided into interior offices. Part of the southeast corner is given over to the base of the five-story high brick shaft used originally for dropping safes. The second floor is an open, but irregular space that served most recently as offices.
9. Flooring: Vinyl or asphalt tile on the second floor. Concrete on the first.
10. Walls and ceiling: Painted plasterboard on the second floor, painted brick on the first. There is also some plastered hollow tile along the western side of the second floor room.
11. Openings: See No. 6 above.
12. Mechanical equipment: None, except the ordinary radiators, lights and toilet fixtures.

D. Building No. 4:

1. Overall dimensions: Rectangular shape measuring 148 feet on Ohio Street and 36 feet deep; 3 stories and basement.
2. Foundations: Reinforced concrete, 2 feet thick.
3. Walls: Brick. The front on Ohio Street is surfaced with face brick and terra cotta in the same tonalities and textures as Buildings Nos. 1 and 2.
4. Structural systems: Outside walls are load-bearing brick; floor beams and floors are reinforced concrete, as is the partial roof at the east end of the third story.
5. Chimneys: There is a chimney at the extreme west end of the building. Its flue served the fireplace in the president's office.

6. Openings:

- a. Doors: The main entrance was accentuated by a design in brick and ornamental terra cotta, a brass door with wire glass, a brass nameplate, and an ornamental art glass lamp. Openings connect the basement with areas under the sidewalk. It also has doors in the southeast and southwest corners leading into Building No. 6. Another opening connects with Building No. 2. The ground floor was joined to Building No. 2 in the same place, and to Building No. 6 by two passages in the southwest corner. The two upper floors connected to Building No. 6 through staircase towers, as the floors above the first in No. 6 are at a higher level. There is a connection with Building No. 2 in the southwest corner.
- b. Windows: Windows are metal sash in metal frames, double-hung with two panes over two as elsewhere on the facade except in Building No. 7. There are now windows on the east front; and ten at the west end of the south side, the rest having been blocked up.

7. Roof: There is a flat roof surfaced with tar and gravel over the east 50 feet of the building.

8. Floor plans: The eastern 3/4 of the basement and ground floor are a single large space that originally served as the Hydraulic Laboratory. The western 1/4 contains a wide passage, a staircase and a room whose walls support the walls of the entrance staircase directly above it. On the first floor the plan is the same. At the eastern end of the second floor there is a presidential suite; at the western end, the entrance staircase and secondary stairs, a toilet, and beyond these, in Building No. 2, a reception room (formerly the president's office). The area between contains executive offices on either side of an east-west hallway.

9. Staircases: The entrance staircase faced with buff pressed brick is highly ornamental. The stairs are illuminated by an exterior and interior set of arched windows with metal casement frames originally containing art glass with rectangular patterns. The sills of these windows and the top of the staircase rail are trimmed in stone. Treads are "art tile." The

handrail is brass. The secondary stairs are secured with a simple iron railing with balusters of square section painted black and a brass rail. The floor there and in the officer's hall is red tile. Ceilings and walls in the officer's hallway are plaster.

10. Floors: The floors in the officer's hall and president's room are red DeSmet's tile. Vinyl or asphalt tile is used on the third floor. On the ground floor it is concrete.
11. Walls and ceiling: Tile is used in the president's office; plaster in the stairhall; concrete and brick in the basement, and acoustical tile on the third floor.
12. Openings: On the second floor the officer's rooms, including the president's office, are entered through metal doors containing wire glass. The third floor is entirely open. There are no internal doors on the ground floor except for a metal door opening into the main staircase. Notable windows are discussed under Staircase section above.
13. Decorative features: In addition to those discussed above, there was a brick fireplace in the president's office. This was removed and re-installed in the new UL building at Northbrook.
14. Hardware: There is a metal screen having a simple rectangular pattern over a radiator at the foot of the main staircase. Door hardware in the officer's suite is simple with linear edges and flat surfaces.
15. Mechanical equipment: Aside from radiators, plumbing in toilet rooms, and fluorescent lighting, there is no mechanical equipment in this part of the building.

E. Building No. 5:

1. Overall dimensions: 50'x 50'; 3 stories and basement; 40 feet high.
2. Foundations: Reinforced concrete, pyramidal; width 13 inches to 5 feet.
3. Walls: Common brick, 13" thick; no wall on north where Nos. 5 and 1 connect.
4. Structural system: Reinforced concrete beams support reinforced concrete floors and roof.

5. Openings: Windows at rear and on east side: double-hung metal sash on metal frames with wire glass glazing.
6. Roof: The flat roof is surfaced with tar and gravel over a cinder fill.
7. Floor plans: On the ground floor three rooms have been built with hollow tile walls along the north and west sides of the main space. On the upper two floors the space is open except for three small rooms in the northwest corner of the second floor which housed a locker room and toilet, and two others, originally used for the same purpose, in the northwest corner of the third floor. The toilet rooms are served by a light shaft built along the west wall.
8. Flooring: concrete.
9. Wall and ceiling finish: Walls: painted brick (some hollow tile partitions); floors: concrete, with vinyl or asphalt tile in Floors 2 and 3.
10. Openings: All interior doors are metal in metal frames.
11. Mechanical equipment: In addition to standard radiators, fluorescent lighting, and toilet fixtures, the building contains a large metal pressure tank in the northwest corner of the ground floor that serves the automatic sprinkler system.

F. Building No. 6:

1. Overall dimensions: The building is rectangular. The basement and first floor measure 147'x 63'. Originally the upper two floors were 147'x 49'. Now the upper floors have the same dimensions as the lower floors -- the result of a light court having been filled in -- except for a remaining light court of 40'x 15' on the northeast side. It has three stories and basement and stands 40 feet high.*
2. Foundations: Reinforced concrete 2 feet thick.

* In fact, the western 1/3 actually contained five stories and a mechanical penthouse, but in order to avoid confusion, the upper two stories and penthouse are discussed under Building No. 8 with which they connect horizontally.

3. Walls: Load-bearing common brick on the east and load-bearing common brick surfaced with face brick trimmed with terra cotta on the rear front (this brick is now painted red).
4. Structural systems: In addition to the load-bearing exterior walls, the building has an internal skeleton of reinforced concrete columns carrying reinforced concrete beams and floors. The columns also bear the weight of a large traveling crane in the vast room on the ground floor.
5. Chimneys: There are two tall metal stacks that rise through the former light court on the north side of the building.
6. Openings: A large opening closed by a rolling metal door communicates with the alley at the first floor level. In the basement there are doors at either end that open into Building No. 4. On the ground floor there are doorways in the northwest corner between 6 and 4, and a wide opening closed by metal doors into Building No. 3. Passageways with staircases connect Floors 2 and 3 with the same floors in Building No. 4. The second floor is also connected with the second floor of Building No. 3. Large rectangular openings on the south side are filled with multipaned metal frames and sash of an industrial type.
7. Floor plans: The basement is divided into a western $1/4$, which houses the heating plant; and an eastern $3/4$ which is partly open in the north $1/2$ to $3/4$ and subdivided into rooms on the south side. Those rooms still in use contain transformers. The ground floor, $1-1/2$ stories high, is mostly open except on the north where it is subdivided by stairways, an elevator, a stack, and toilets. The upper three floors are also primarily open except where divided off for toilets, a few interior offices, and the stairs, elevator, and stack that begin on the ground floor. The areas on the north, formerly part of the light court, form separate interior spaces.
8. Stairways: A staircase at the northwest end of Building No. 6 serves all floors. Another about $2/3$ of the way toward the eastern end on the north side serves Floors 1 through 3. Next to the latter is an elevator that begins in the basement and serves all floors.
9. Flooring: Concrete in the basement and ground floor; vinyl or asphalt tile above.

10. Wall and ceiling finishes: Concrete in the basement; brick walls and concrete ceiling on the first floor; plaster walls and acoustical ceilings on Floors 2 and 3.
11. Openings: None except windows and doors leading out of the building as noted already; and interior metal doors on toilet rooms, fire stairs, transformer rooms, and the few interior offices.
12. Mechanical equipment: In addition to radiators, plumbing in toilet rooms and laboratory sinks, ordinary fluorescent lighting, and the like; the major pieces of mechanical equipment remaining in this section are the boilers and electrical transformers in the basement, the elevator, and the traveling crane of the first floor.

G. Building No. 7:

1. Overall dimensions: This is a two-story addition above Buildings Nos. 2 and 4. It is 167 feet in length and rectangular in shape except that its depth over Building No. 2 (30 feet) is less than its depth over Building No. 4 (36 feet).
2. Walls: Brick. The front and side walls are surfaced with face brick.
3. Structural systems: There is an internal skeleton of reinforced concrete. The columns, which are partly imbedded in the outside walls, support the ends of reinforced concrete beams which carry reinforced concrete floor and roof slabs. Six interior columns on the fourth floor over Building No. 2 complete this interior structure.
4. Openings: At the west end there is an exit by way of the aforementioned glass block enclosed spiral metal staircase to the third floor of Building No. 1. An elevator opens onto Floors 4 and 5 at the southeast corner of Building No. 2. Next to it on the east is a door leading to the fire staircase in Building No. 8. Another door at the east end of the building communicates with the fire stairs that link Buildings Nos. 7 and 8. Another elevator is also located at that point. Windows on the west, north and east are metal casement with metal sash filled with wire glass.
5. Roof: Flat, surfaced with tar and gravel.
6. Floor plans: The floors are open except for a toilet room in the center of each floor near the stairs and elevator.

7. Flooring: Vinyl or asphalt tile.
8. Wall and ceiling finish: Plastered walls, acoustical ceilings.
9. Mechanical equipment: None, except for the ordinary radiators, fluorescent lights, and plumbing fixtures in the toilet rooms.

H. Building No. 8:

1. Overall dimensions: For convenience, Building No. 8 and the upper two floors of Building No. 6 are combined. The actual dimensions of Building No. 8 are 100 feet east to west, and 47 feet north to south. The combined dimensions are 150'x 47'. Some additional space was added to Building No. 8 by enclosing the light court between Nos. 8 and 7. This area is approximately 108'x 16'. This building consists of Floors 4 and 5 and an interconnected penthouse at the west end of the building and a low attic over the eastern 3/4 of the building.
2. Walls: Common brick (only in the eastern 2/3; for the western 1/3, see walls in No. 6 above (all are now painted red).
3. Structural system: There is an internal skeleton of reinforced concrete; the columns are partly imbedded into the outside brick walls; they carry concrete beams which support concrete floors and roof slabs.
4. Chimneys: A metal stack passes through the area formerly serving as a light court but now incorporated into the building.
5. Openings: Metal doors open onto a fire escape at the rear. Otherwise, there are doors connecting to the stair hall passageways on the north side through which Building No. 7 is reached. Each floor is also connected to the elevator and, again through metal doors, with the enclosed light court space. The exterior walls contain metal double-hung sash in metal frames containing wire glass.
6. Roof: Tar and gravel.
7. Floor plans: The floors are open except on the fifth floor where a wall, apparently remaining from the original construction of the higher part of Building No. 6, divides the floor into 1/3 west, and 2/3 east. There are a toilet and a few small offices in the

southwest corner of the fourth floor. Included in this building, as extended, are two staircases, one in the northwest corner, the other near the east end on the north side. This 16-foot wide former light court also contains a metal chimney enclosed by brick walls, and a long narrow room that formerly served as court.

8. Stairways: See Floor plans above.
9. Flooring: Vinyl or asphalt tile on Floors 4 and 5. The floors of the attic and penthouse are concrete.
10. Wall and ceiling finish: The walls are plastered and the ceilings acoustical tile on Floors 4 and 5; on 6 the walls are brick and the ceilings concrete.
11. Mechanical equipment: There is a considerable amount of electrical equipment in the attic and penthouse of this building. Equipment for the elevator is housed in its own tower. Otherwise, there are radiators, fluorescent lights, and the usual plumbing and fixtures.

C. Site:

1. The streets in this area are oriented to the point of the compass thus the main front on Ohio Street faces north. The land is flat and vegetation scarce.
2. Newer buildings in the area of the Underwriters' Building are mostly office buildings and apartment houses: immediately east, for example, is the Time-Life Building and the McClurg Court Apartment and Sports Center. The older buildings, beginning at St. Clair and running east, are mostly warehouses and loft buildings. To the north and west old houses may also be seen. West of St. Clair the newer buildings (post-World War II) are hotels and shops focusing on North Michigan Avenue.
3. When the first Underwriters' Laboratories building was erected in 1905, the area east of the site was lake fill containing only a few scattered structures. These were mostly warehouses, loft and manufacturing buildings. North, south and west, except for nearby Michigan Avenue where commercial buildings prevailed, there was housing. But even then the houses were beginning to be crowded out by more utilitarian structures. The area continued its gradual change to warehousing, shipping, manufacturing and the like until after World War II. Then the process reversed itself as Chicago's shopping area began to move north and, with it, the demand for first-class office space and luxury apartments. The entire Near North east of Michigan is now well on its way to becoming a district of expensive office, commercial, and residential buildings.

PART III. SOURCES OF INFORMATION

- A. Original Architectural Drawings: Plans of buildings owned by Irving J. Markin, I. J. Markin Financial Services, Chicago, Illinois, photocopied for inclusion in the HABS Photo Book.

B. Early Views:

All early exterior and interior photographs photocopied for inclusion in the HABS Photo Book were provided by Underwriters' Laboratories' Public Information and Education Services Department.

Photocopies of old photographs of the UL complex used as field photos were also provided by the Public Information and Education Services Department.

C. Bibliography:

1. Primary and unpublished sources:

Property transactions, Secretary, Underwriters' Laboratories, Northbrook, Illinois

1905 plat, Underwriters' Laboratories, Northbrook, Illinois

2. Secondary and published sources:

Annual Reports, Underwriters' Laboratories

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Building Reports, Construction News, Chicago

Insurance Maps of Chicago, "North and West Division", Vol. I. New York: Sanborn Map Company, 1906, corrected to 1931

Illinois Society of Architects Monthly Bulletin, September 1926, Vol. II, p. 7

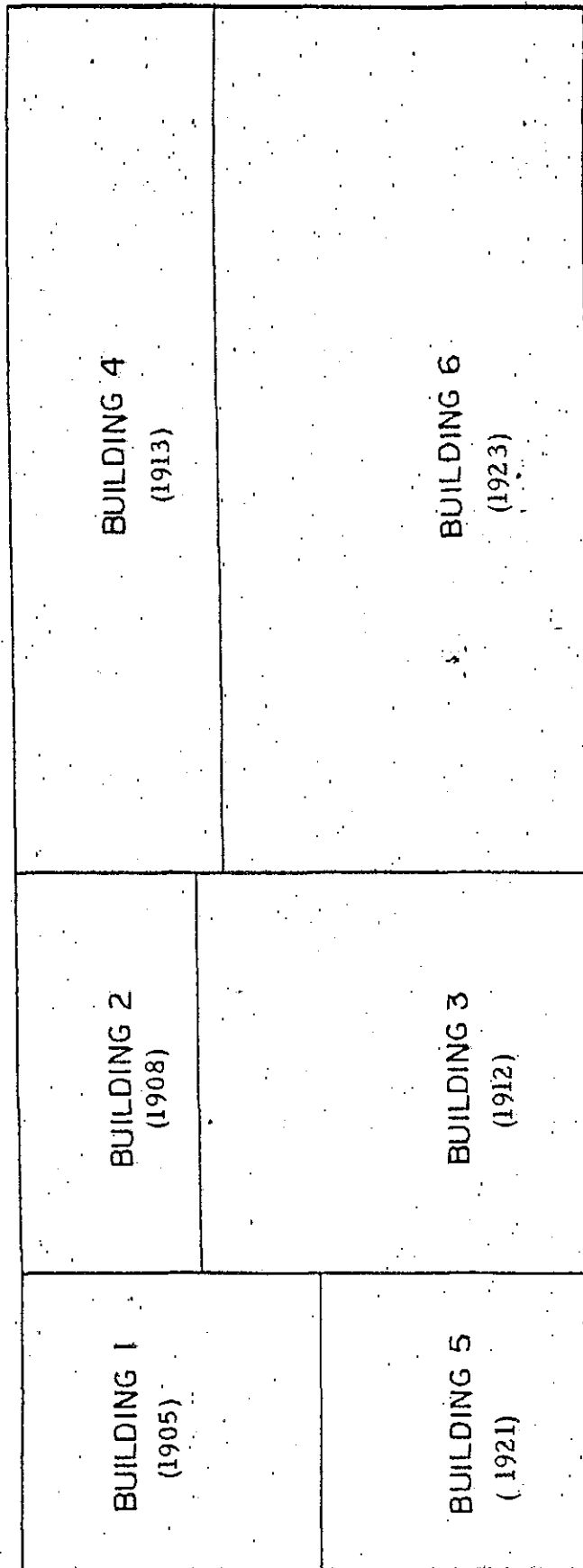
Lab Data, published irregularly by Underwriters' Laboratories, Northbrook, Illinois

Organization, Principles and Methods of Underwriters' Laboratories, written by UL, published irregularly

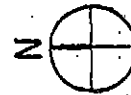
D. Supplemental Material: See attached

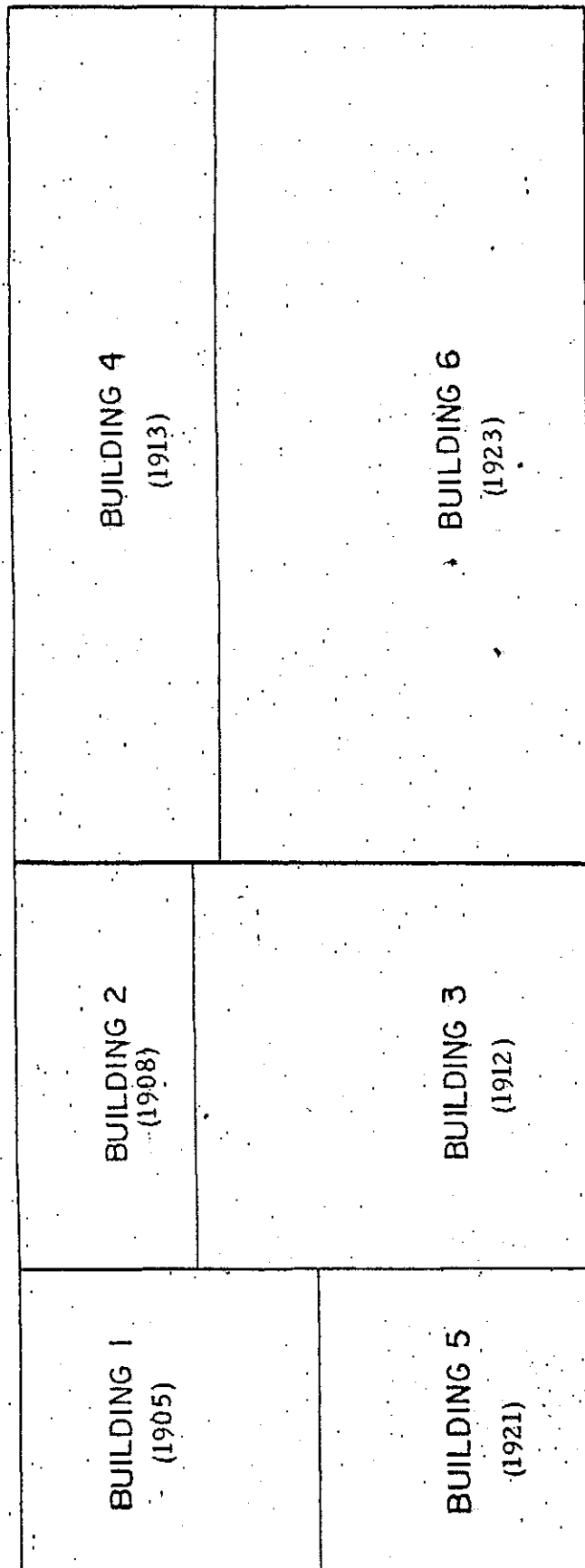
Prepared by:

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Historic Preservation Services
Milwaukee, Wisconsin
September 1980




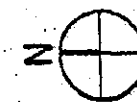
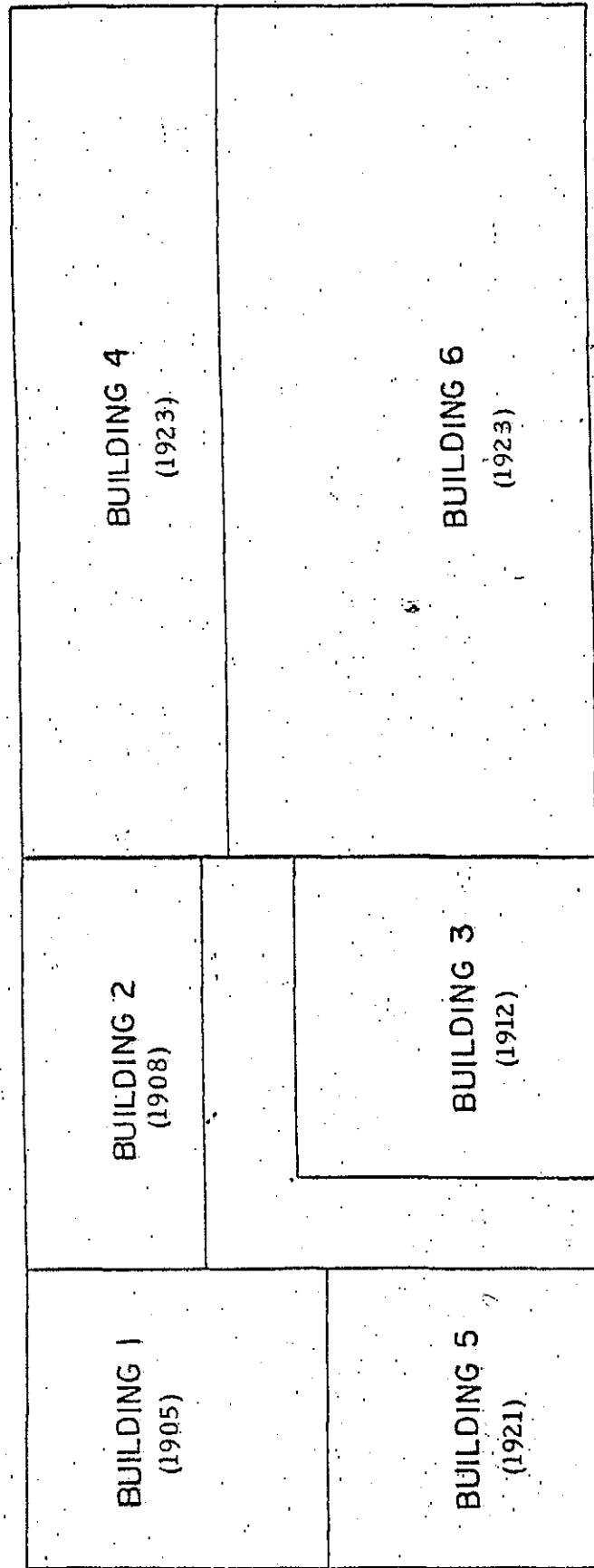
BASEMENT PLAN
UNDERWRITERS' LABORATORIES BUILDING
201 E. OHIO STREET



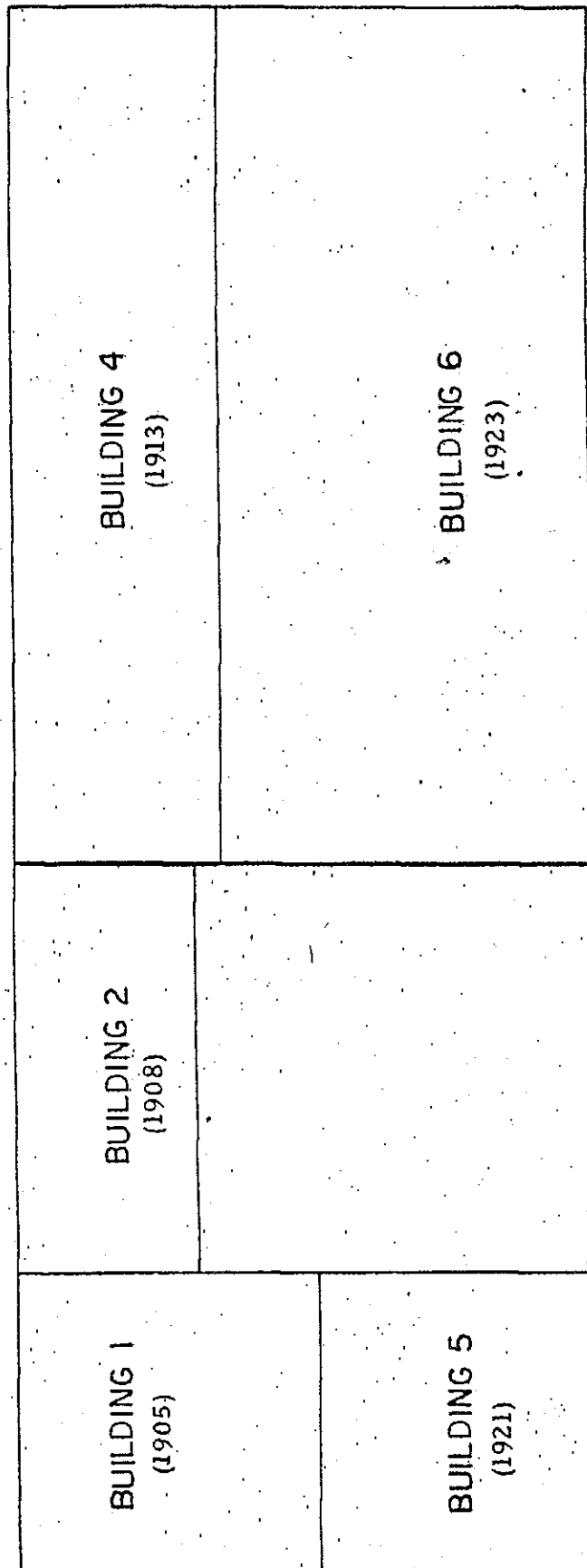


FIRST FLOOR
UNDERWRITERS' LABORATORIES BUILDING
201 E. OHIO STREET

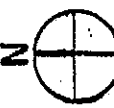
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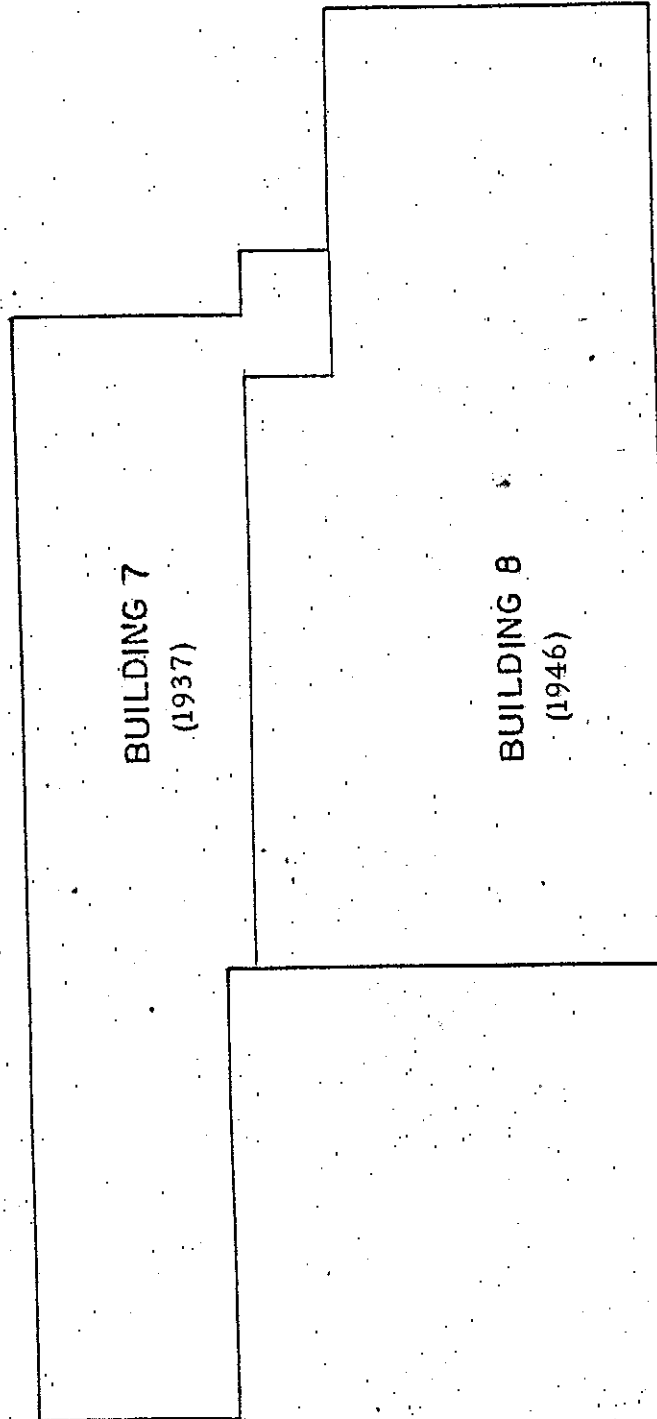


SECOND FLOOR
UNDERWRITERS' LABORATORIES BUILDING
201 E. OHIO STREET



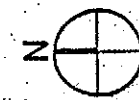
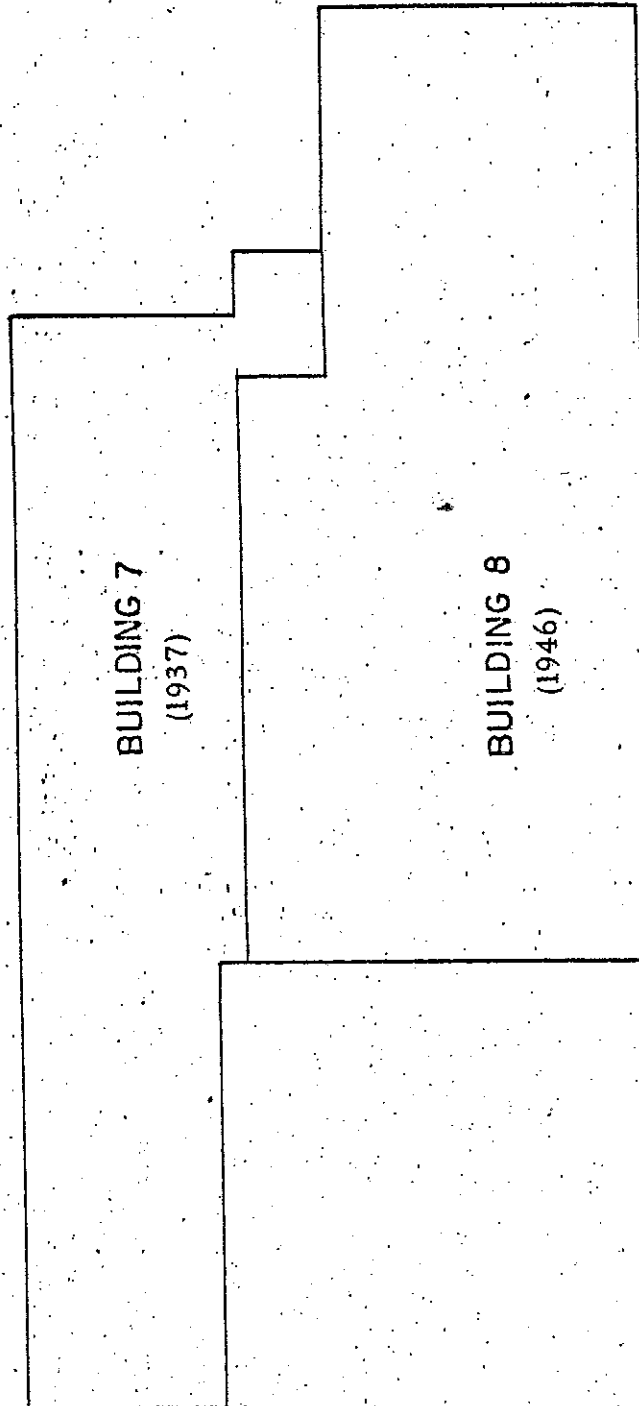
THIRD FLOOR
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FOURTH FLOOR
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FIFTH FLOOR
UNDERWRITERS' LABORATORIES BUILDING
201 E. OHIO STREET

PART IV. PROJECT INFORMATION

The project was completed in satisfaction of a Memorandum of Agreement issued by Jordan E. Tannenbaum of the Advisory Council on Historic Preservation dated May 16, 1980 and signed by Robert Garvey for the Advisory Council, Martin R. Rogan for the U.S. Department of Housing and Urban Development, and David Kenney for the Illinois State Historic Preservation. The project was supervised and largely carried out by Paul E. Sprague, Ph.D., with assistance from Skidmore, Owings and Merrill (copies of original drawings); Thomas Yanul (on-site photographs); Underwriters' Laboratories (documents) and Irving J. Markin, building owner, during August and September 1980. Historic American Buildings Survey (HABS) served as the project co-ordinator, for purposes of providing documentation standards and other information. Susan McCown, a HABS historian in the Washington, D.C. office, edited the written data in 1982, for transmittal to the Library of Congress